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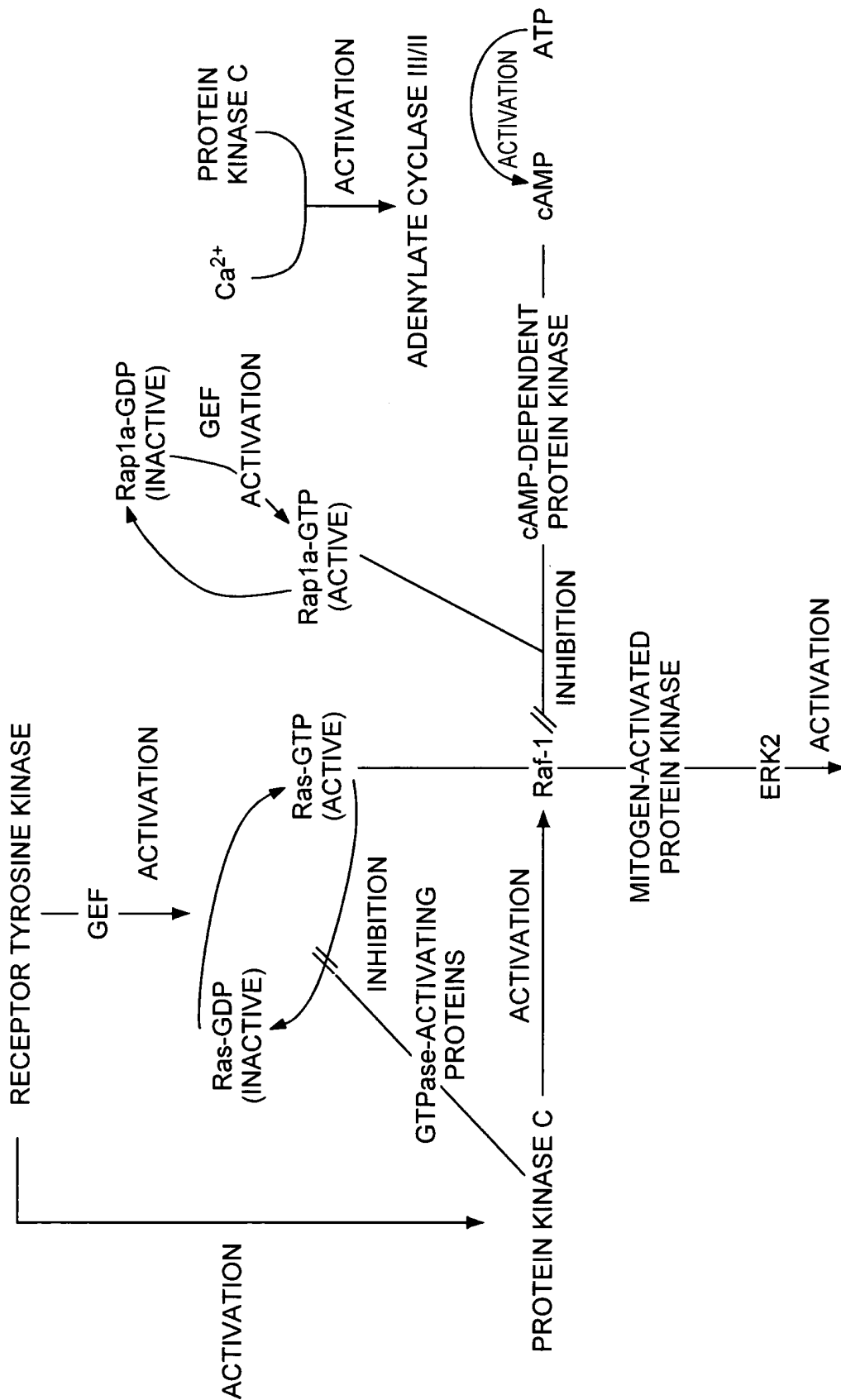


FIG. 1

MAPK-ACTIVATED PROTEIN KINASE 2, ETC.

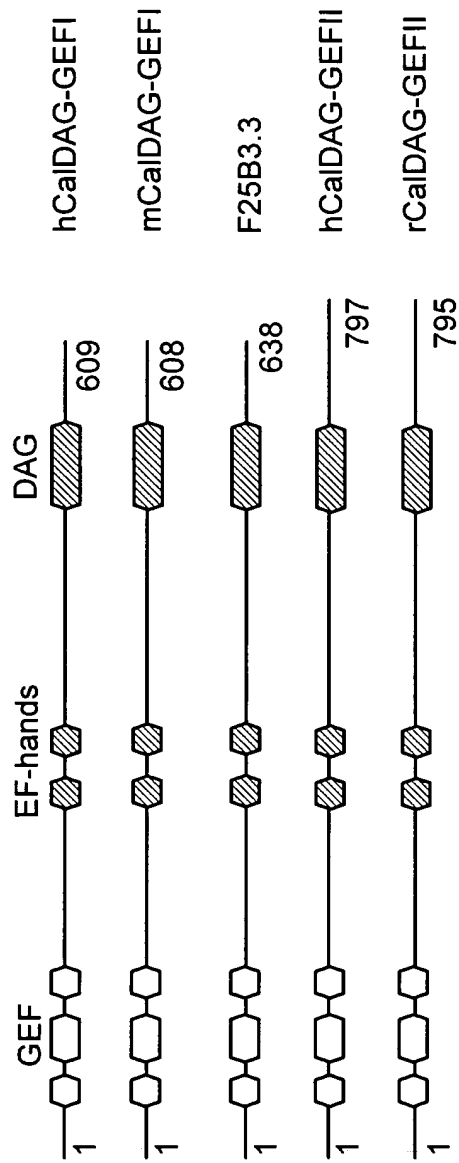


FIG. 2A

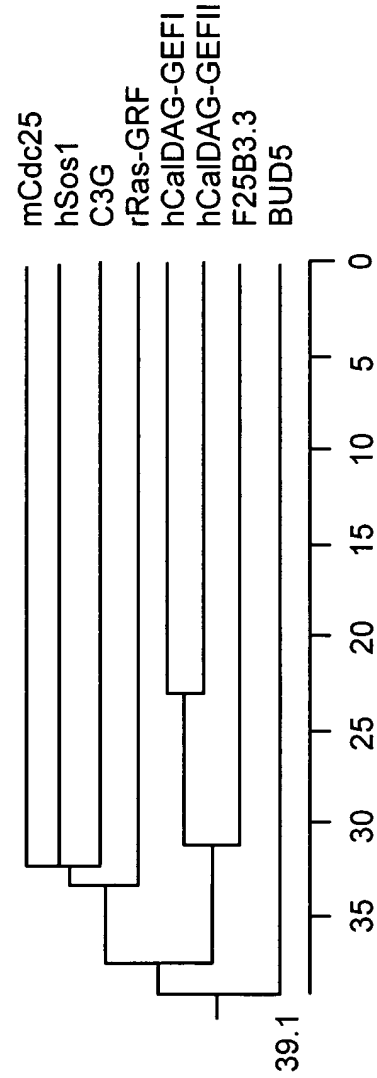


FIG. 2B

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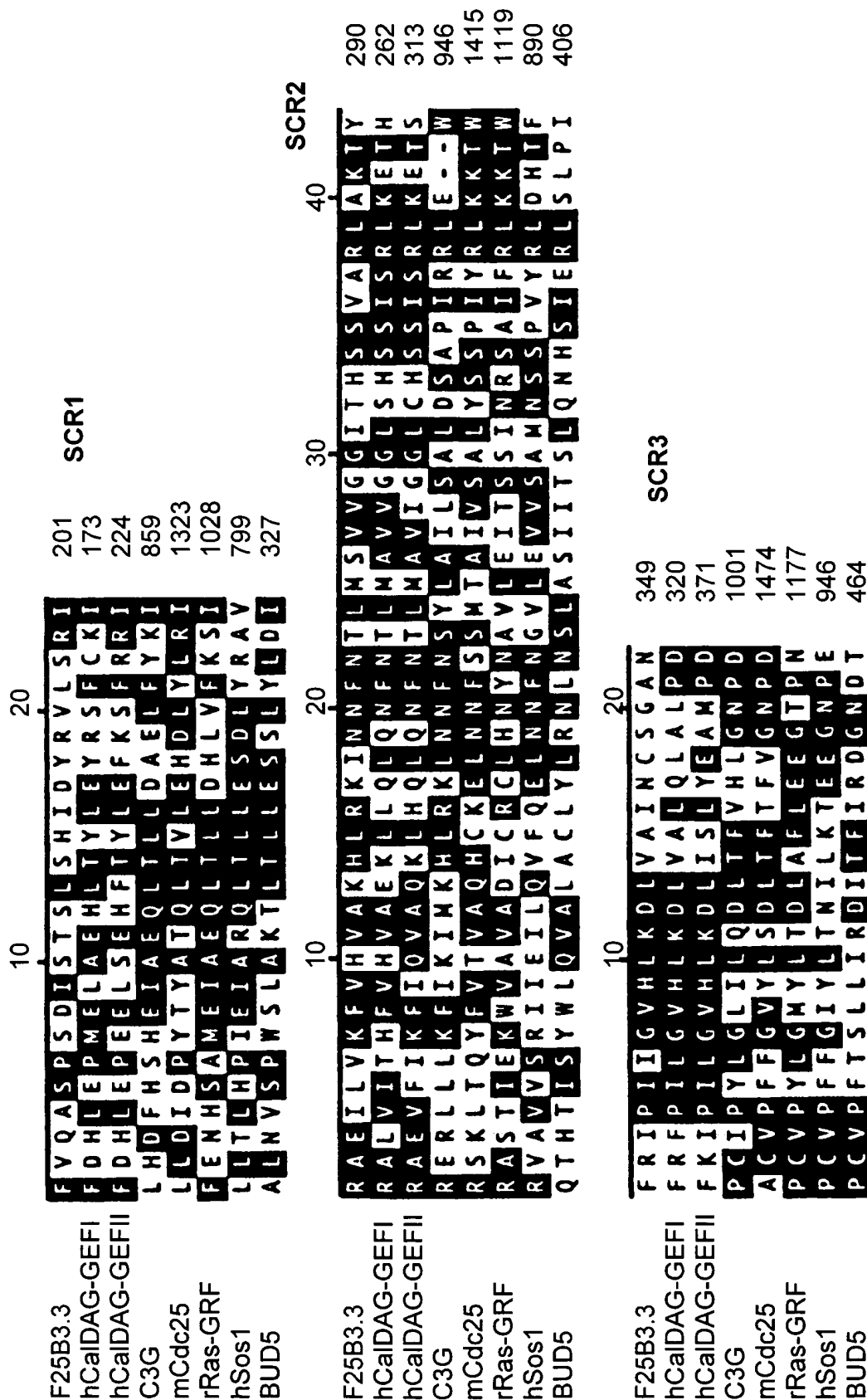


FIG. 2C

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FIG. 2D-1	FIG. 2D-2
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FIG. 2D

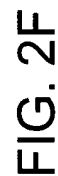
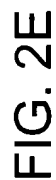
hCaIDAG-GEFI	MAGTLDLQKGCCTVEEELLRGCCIEAFDDSGKVRDPQLVRRMFLMMHPWYIPSS
mCaIDAG-GEFI	MA ^S TLDLQKGCCTVEEELLRGCCIEAFDDSGKVRDPQLVRRMFLMMHPWYIPSS
hCaIDAG-GEFI	KELKALLDQEGNRRHSSSLIDIDSVPTTYKWKRRQVTVQRNPPVGGQKKRKMSSLF
mCaIDAG-GEFI	KELKALLDQEGNRRHSSSLIDID ^E SVPTTYKWKRRQVTVQRNPPV ^E QKKRKMSSLF
hCaIDAG-GEFI	NSVSQWVQLMILSKPTAPQRALVITTHFVHVAAEKLLQLQNFNTLMVAVVGGGL
mCaIDAG-GEFI	NSVSQWVQLMILSKPTA ^T QRALVITTHFVHVAAEKLLQLQNFNTLMVAVVGGGL
hCaIDAG-GEFI	FPIILGVHLKDLVALQLALPDWLDPARTRLNGAKMKQLFSIILEELAMVTSLS
mCaIDAG-GEFI	FPIILGVHLKDLVALQLALPDWLDP ^G ARTRLNGAKM ^R QLFSIILEELAMVTSLS
hCaIDAG-GEFI	PPRPPVLEEENTSSAAKPKLDQALVVEHIEKMWESVFRNFDVDDGGHISQEE
mCaIDAG-GEFI	PPRPPVLEEENTSS ^V AKPKLDQALV ^A EHIEKMWESVFRNFDVDDGGHISQEE
hCaIDAG-GEFI	FQESNSLRPVPACRHCCKALILGIYKQGLKCRACGGVNCCHKQCKDRLSVECR
mCaIDAG-GEFI	FQESNSLRPVPACRHCCKALILGIYKQGLKCRACGGVNCCHKQCK ^E RLSVECR
hCaIDAG-GEFI	EDGVFDIHL
mCaIDAG-GEFI	EDGVFDIHL

FIG. 2D-1

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QLAAKLLHIYQQSRKDMNSLSLQVKTKCHLVRYWISAFPAEFDLNPELAEQI	100
QLASKLLHFIYQQSRKDMNSLSLQVKTKCHLVRYWISAFPAEFDLNPELAEPI	100
DHLEPMELAEHLTYLEYRSFCIKILFQDYHSFVTHGCTVDNPNVLERFISLF	200
DHLEPMELAEHLTYLEYRSFCIKILFQDYHSFVTHGCTVDNPNVLERFISLF	200
SHSSISRLKETHSHVSPETIKLWEGLTELVATGNYGNYRRRLAACVGFRR	300
SHSSISRLKETHSHVSPDTIKLWEGLTELVATGNYSNYRRRLAACVGFRR	300
RPPVQAMPDILLSLTVSLDQYQTEDELYQLSLQREPRSKSSPTSTCTP	400
RPPVQAMPDILLSLTVSLDQYQTEDELYQLSLQREPRSKSSPTSTCTP	400
FQIIRGNFPYLSAFGDLQDNQDGCISREEMVSYFLRSSSVLGGRMGFVHM	500
FQIIRGNFPYLSAFGDLQDNQDGCISREEMIISYFLRSSSVLGGRMGFVHM	500
RAQSVSLEGSA P S P S P T H T H H R A F S F S L P R P G R R G S R P P E I R E E E V Q T V	600
RAQSVSLEGSA P S P S P T H T H H R A F S F S L P R P G R R S S R P P E I R E E E V Q S V	599
	609
	608

FIG. 2D-2



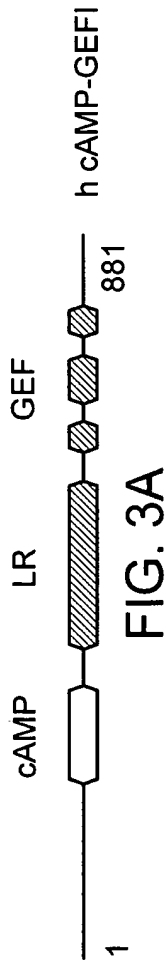


FIG. 3A

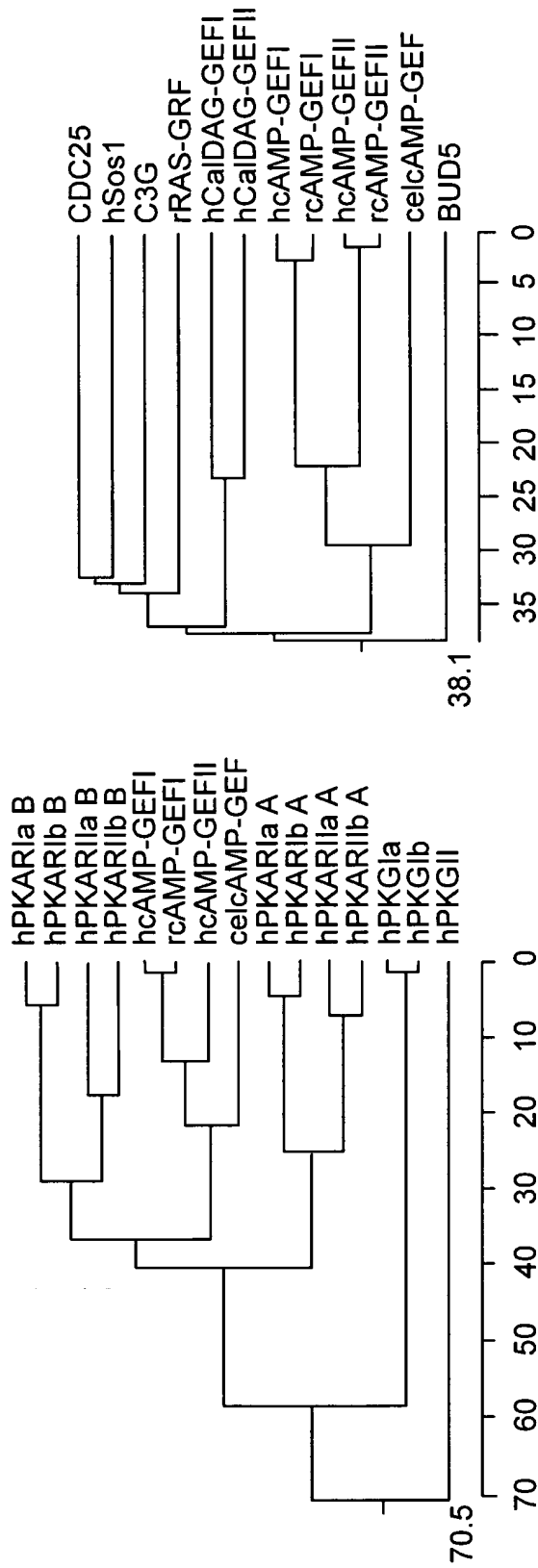


FIG. 3C

FIG. 3B

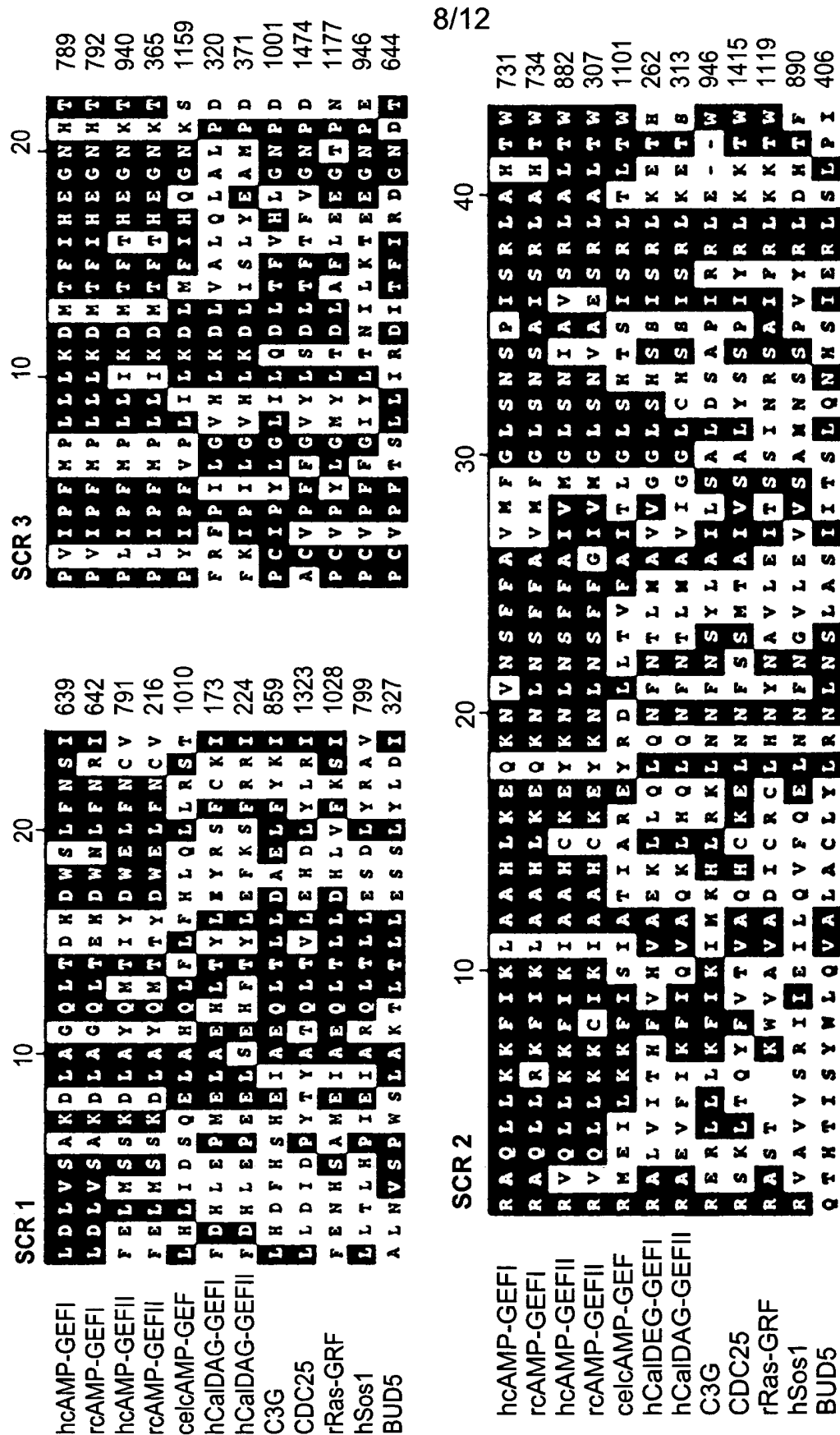


FIG. 3D

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hcAMP-GEFI	M V L - - - - -
hcAMP-GEFII	M V A A H A A H S S S S A E W I A C L D K
hcAMP-GEFI	- - - - - H Q H P
hcAMP-GEFII	Y A V L A G S L D V K V S E T S S H Q D A
hcAMP-GEFI	- - - - - T P
hcAMP-GEFII	P Y G V M E T G S N N D R I P D K E N T P
hcAMP-GEFI	L V D G I L A L G L G V H S R S Q V V G I
hcAMP-GEFII	L V D W M M Q Q T P C V H S R T Q A V G M
hcAMP-GEFI	S Q R G P D A L L T V A L R K P P G Q R T
hcAMP-GEFII	S Q M G P D A H M R M I L R K P P G Q R T
hcAMP-GEFI	G S V N V V T H G K G L V T T L H E G D D
hcAMP-GEFII	G S V N V V I Y G K G V V C T L H E G D D
hcAMP-GEFI	A S Q G A - G P S R P P T P G R N R Y T V
hcAMP-GEFII	V P A G N R A S N Q G N S Q P Q Q K Y T V
hcAMP-GEFI	G G S E Q E R S T Y V C N K R Q Q I L R L
hcAMP-GEFII	Q G T E Q E K M D Y A L N N K R R V I R L
hcAMP-GEFI	S P Q M K A R N L P V W L P N Q D E P L P
hcAMP-GEFII	A P Q K K H K V L L Q Q F N T G D E R - A
hcAMP-GEFI	G D A I G L Q P D A R G V A T S L G L N E
hcAMP-GEFII	G E K V V L K P N D V S V F T T L T I N G
hcAMP-GEFI	H Y V L G P Q H L R D V T T A N L E R F M
hcAMP-GEFII	Y H T F G R H N F K K - T T A N L D L F L
hcAMP-GEFI	R L A H T W E R L P H K V R K L Y S A L E
hcAMP-GEFII	R L A L T W E K L P S K F K K F Y A E F E
hcAMP-GEFI	A A R M L H H C R S H N P V P L S P L R S
hcAMP-GEFII	T A R T V R Y Y R S Q - - - P F N P - - -

FIG. 3F-1

FIG. 3F-2

FIG. 3F-3